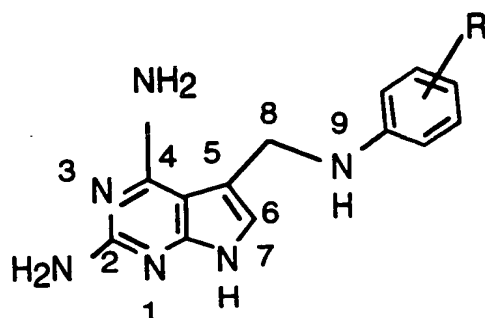


(A) Pd-BaCO₃/DMF/MeOH; (B) chlorformamidine/Dowtherm-A; (C) guanidine HCl/NaOEt/ Δ ;
 (D) Raney Ni/80% AcOH/MeOH; (E) NaCNBH₃/MeOH/AcOH; (F) HCOOH/Raney Ni; Δ ;
 (G) 1 N NaOH/MeOH/rt.

FIG. 1



- 1: R=3',4',5' -(OCH₃)₃
 2: R=3',4' -(OCH₃)₂
 3: R=4' -(OCH₃)
 4: R=2',5' -(OCH₃)₂
 5: R=2',5' -(OC₂H₅)₂
 6: R=3',4' -(Cl)₂
 7: R=2',3' -(CH)₄
 8: R=H

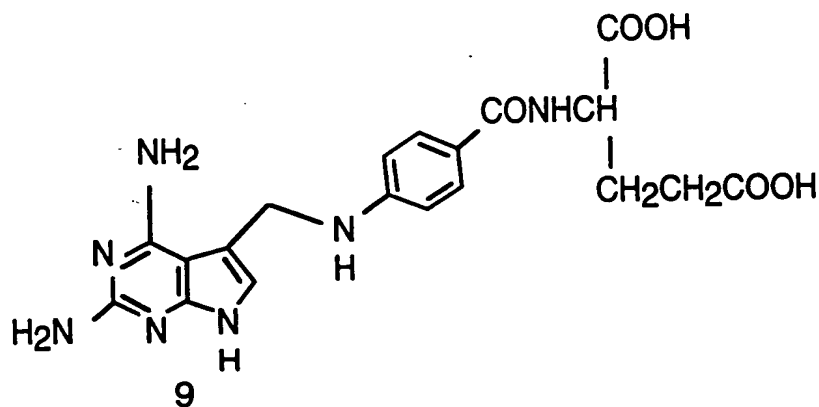


FIG. 2

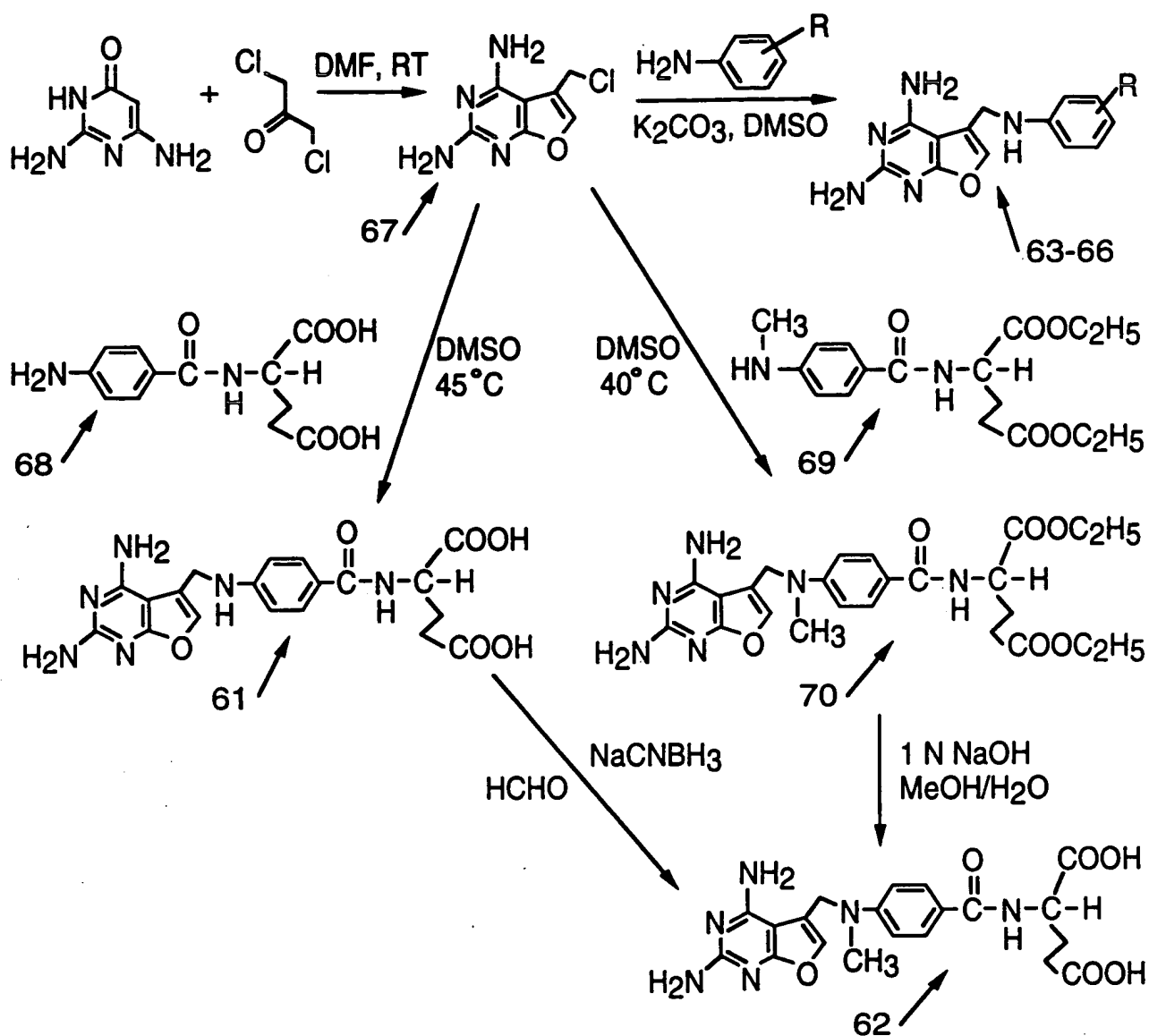


FIG. 3

09603664, 062300

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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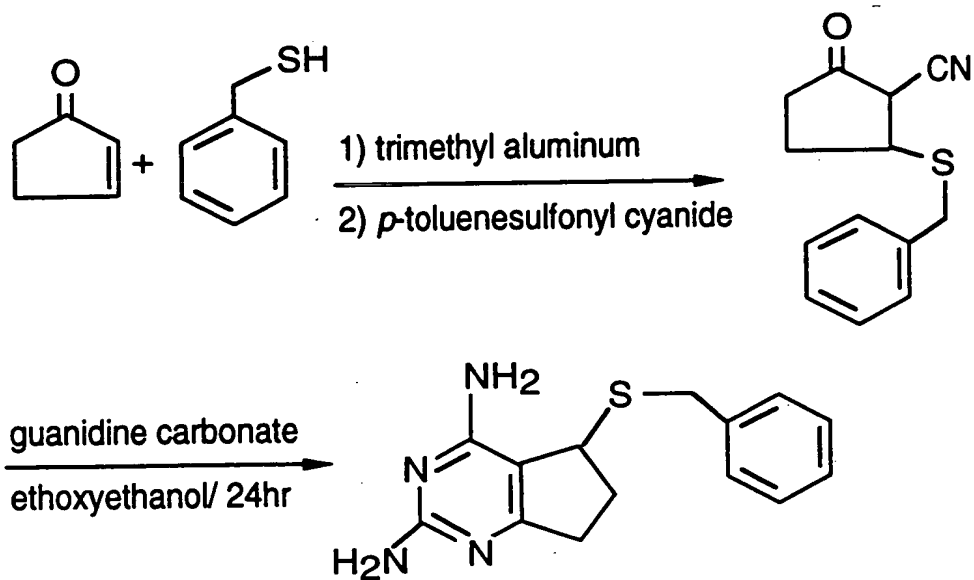


FIG. 4

09603664, 062300

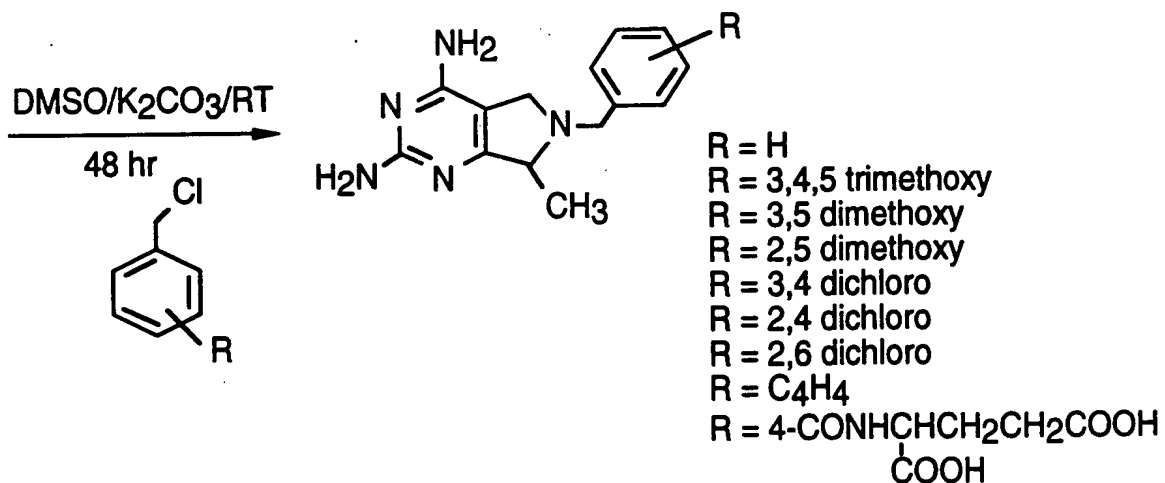
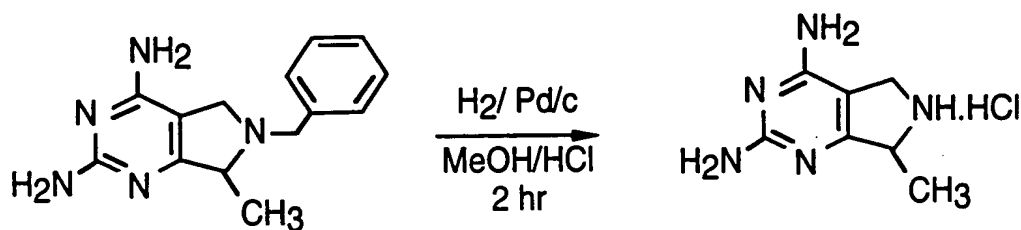
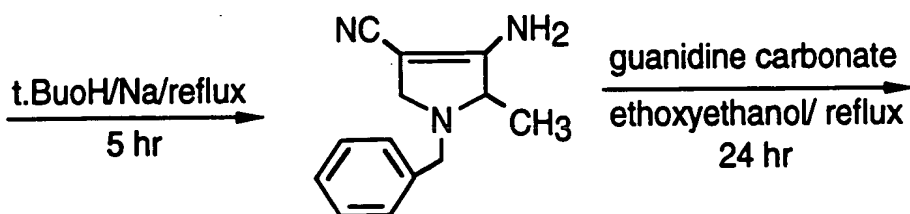
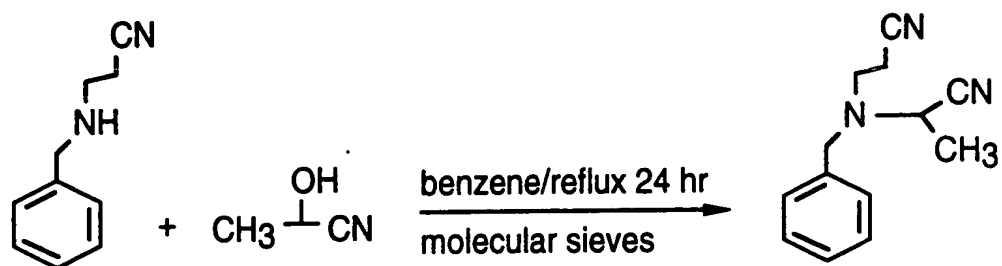


FIG. 5

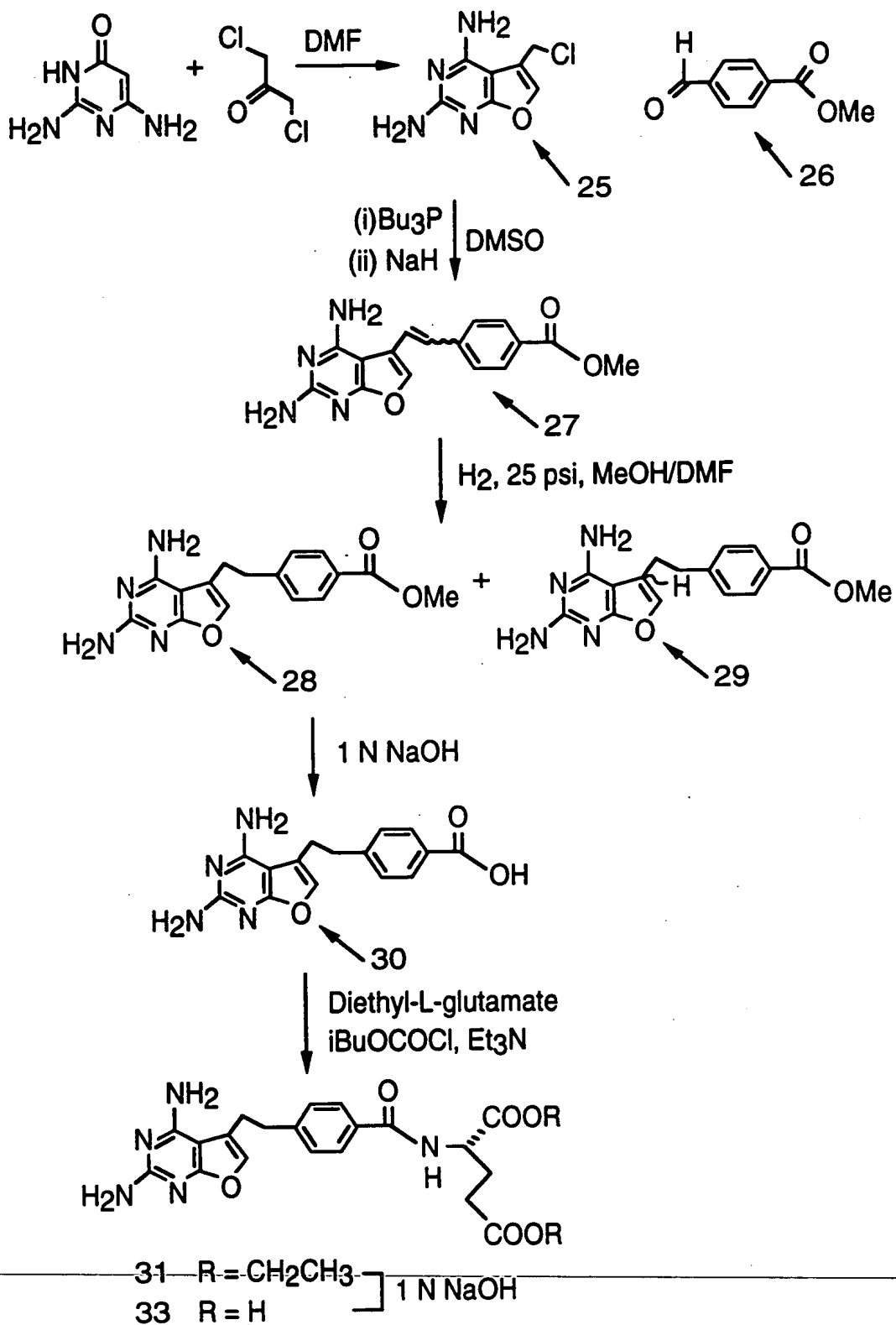


FIG. 6

09603664, 062200

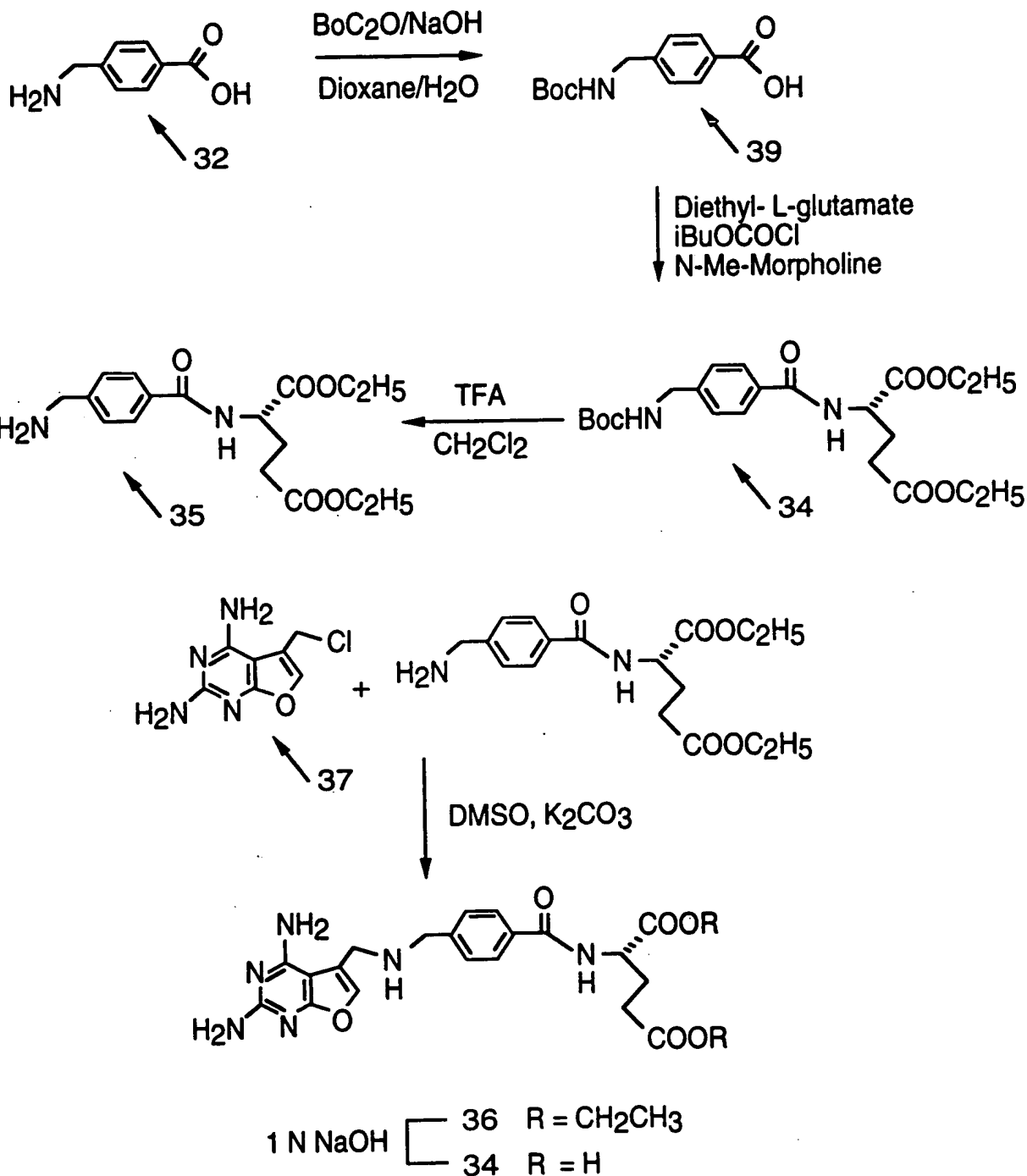
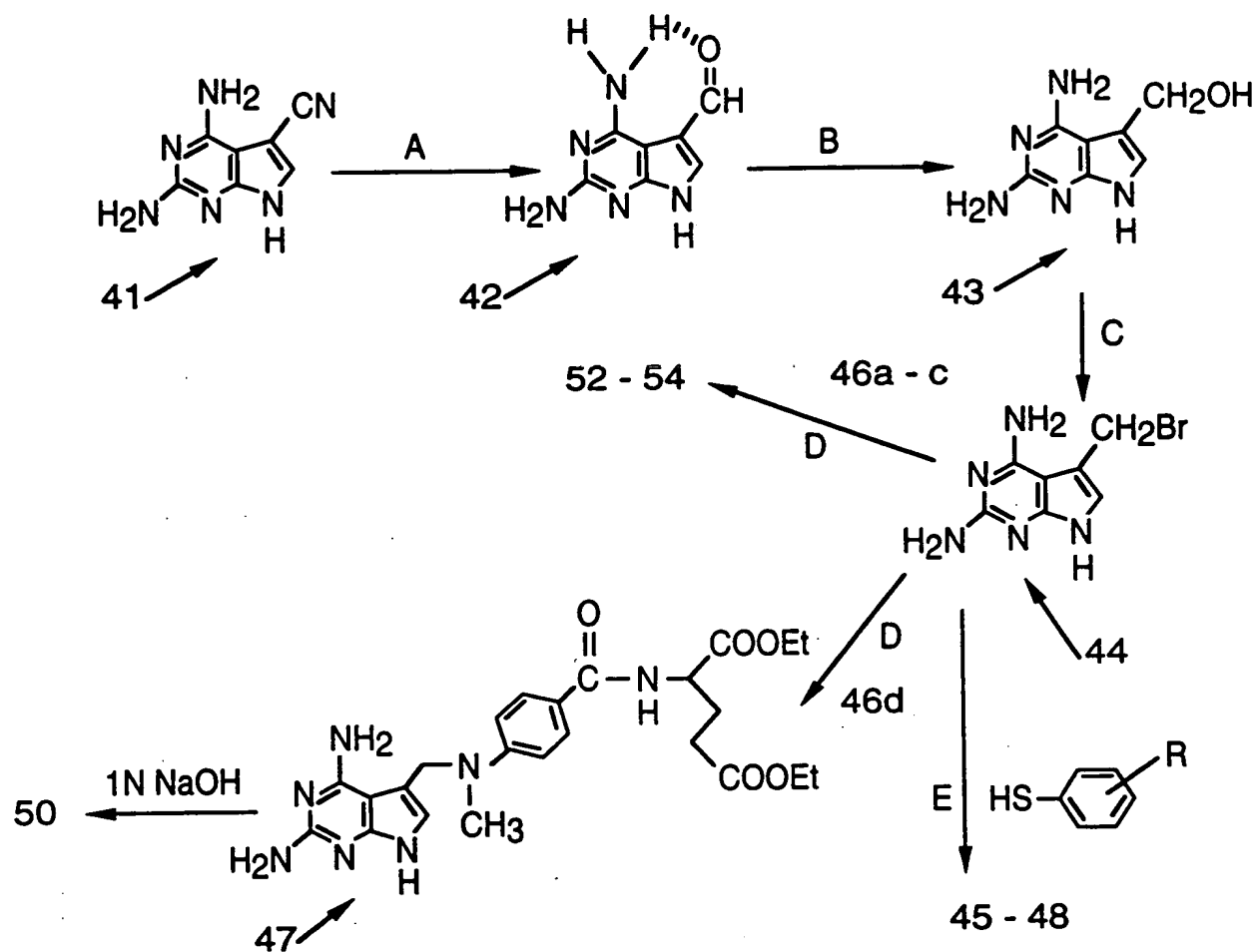


FIG. 7

002230-199E0950



(A): Raney Ni/HCOOH; (B): NaBH₃; (C): 30% HBr-AcOH; (D): DMF; (E): NaH/DMF

FIG. 8

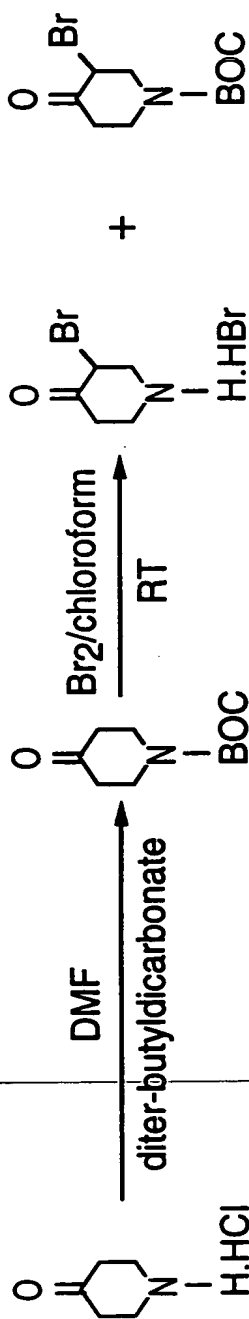


FIG. 10a

FIG. 10b

FIG. 10c

FIG. 10d

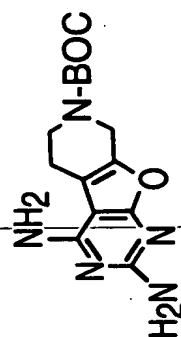


FIG. 10e

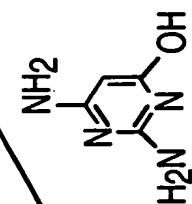


FIG. 10f

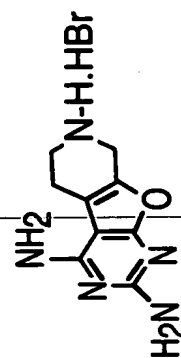


FIG. 10g

FIG. 10h

FIG. 10i

FIG. 10j

FIG. 10k

FIG. 10l

FIG. 10m



FIG. 10n

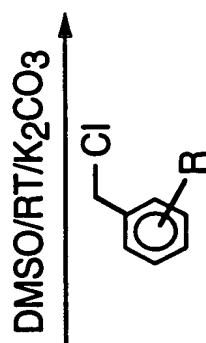


FIG. 10m



FIG. 10n

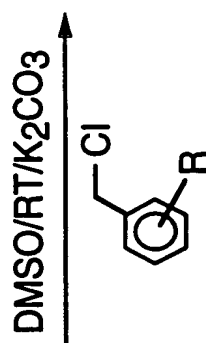


FIG. 10m

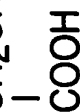


FIG. 10n

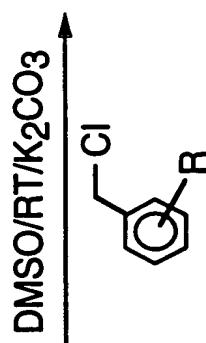


FIG. 10m



FIG. 10n

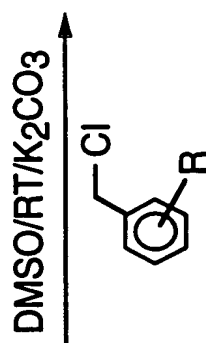


FIG. 10m



FIG. 10n

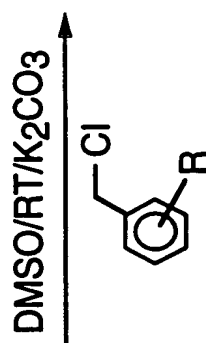


FIG. 10m



FIG. 10n

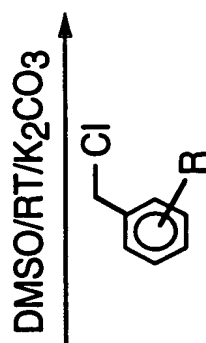


FIG. 10m

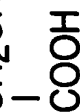


FIG. 10n

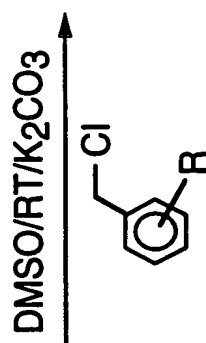


FIG. 10m



FIG. 10n

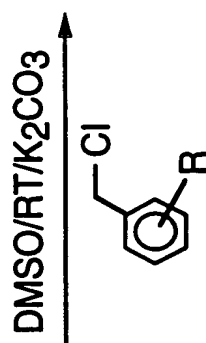


FIG. 10m



FIG. 10n

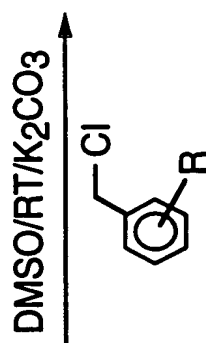


FIG. 10m



FIG. 10n

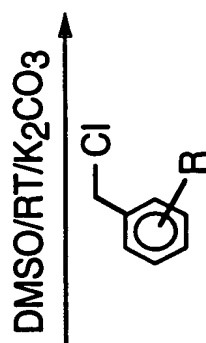


FIG. 10m

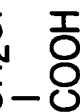


FIG. 10n

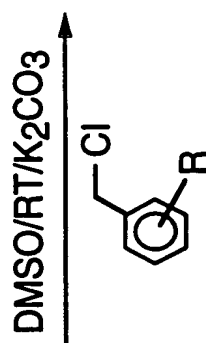


FIG. 10m



FIG. 10n

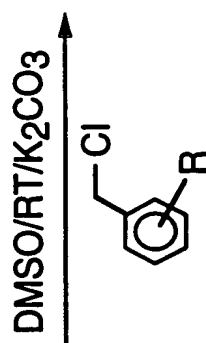


FIG. 10m



FIG. 10n

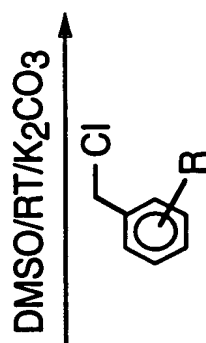


FIG. 10m



FIG. 10n

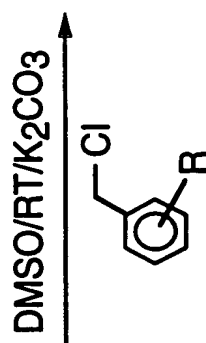


FIG. 10m



FIG. 10n

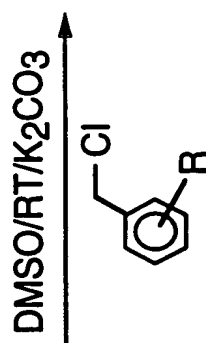


FIG. 10m



FIG. 10n

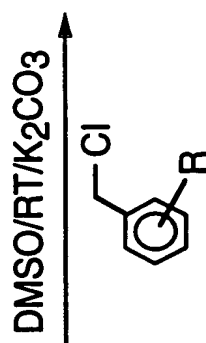


FIG. 10m

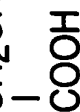


FIG. 10n

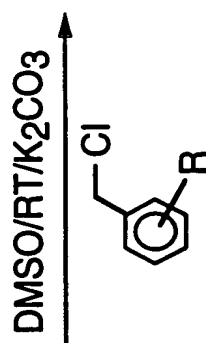


FIG. 10m



FIG. 10n

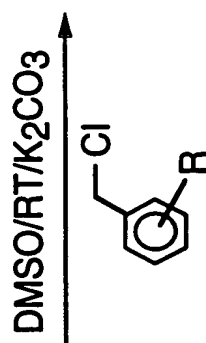


FIG. 10m



FIG. 10n

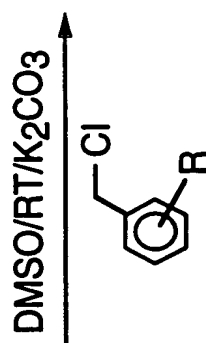


FIG. 10m

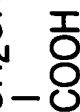


FIG. 10n

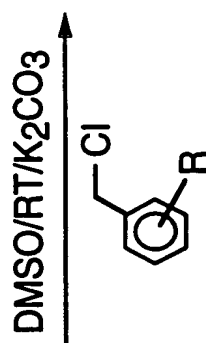


FIG. 10m



FIG. 10n

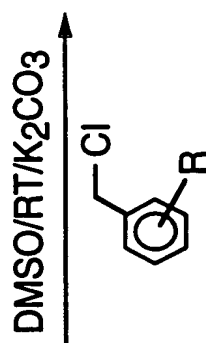


FIG. 10m



FIG. 10n

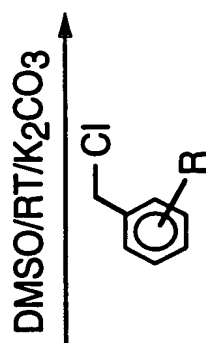


FIG. 10m

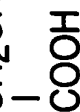


FIG. 10n

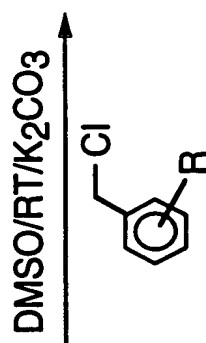


FIG. 10m



FIG. 10n

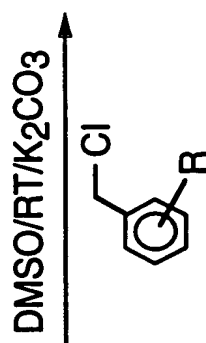


FIG. 10m



FIG. 10n

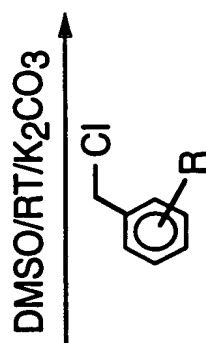


FIG. 10m



FIG. 10n

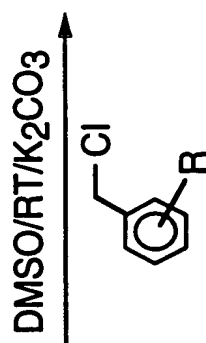


FIG. 10m

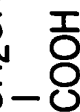


FIG. 10n

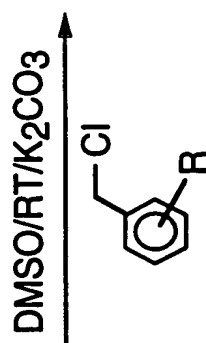


FIG. 10m



FIG. 10n

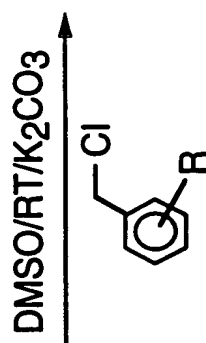


FIG. 10m



FIG. 10n

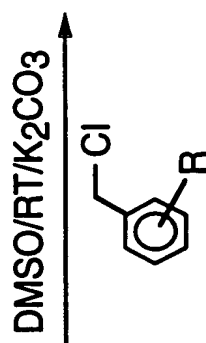
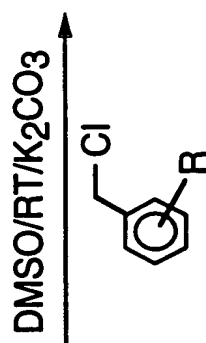


FIG. 10m



FIG. 10n



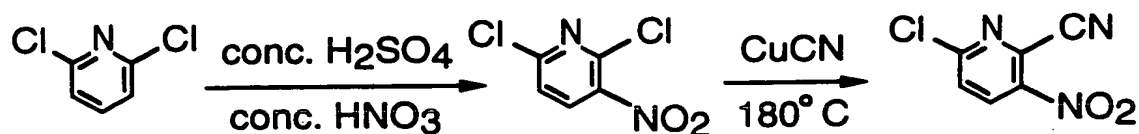


FIG. 11a

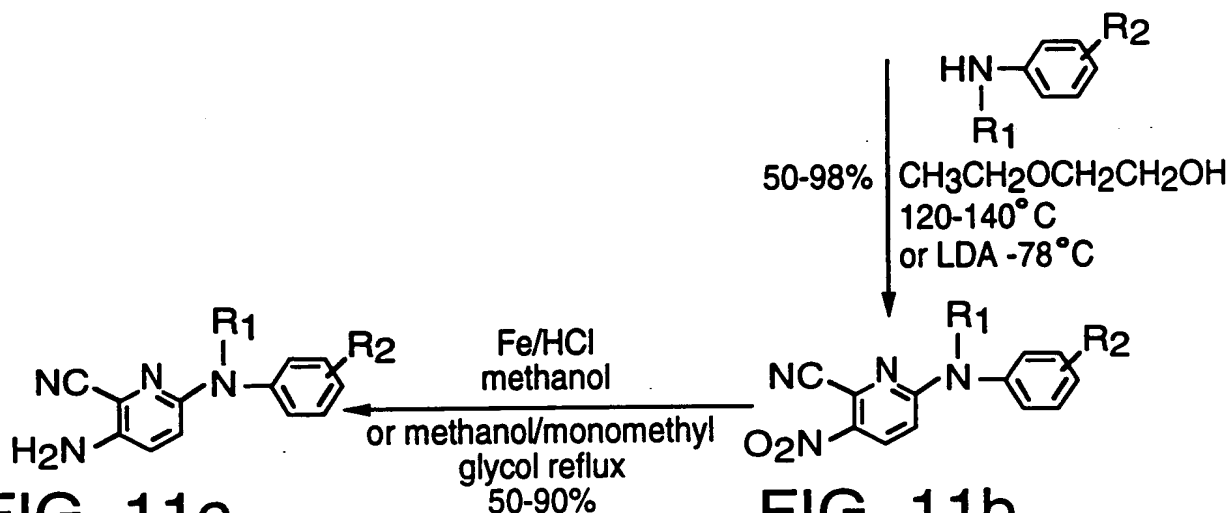


FIG. 11c

FIG. 11b

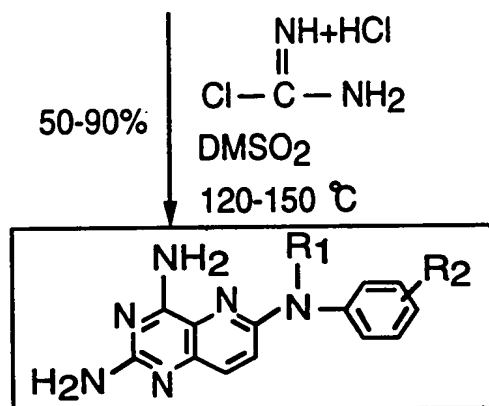


FIG. 11d

- R₁ = H, R₂ = 3',4'-diOMe
- R₁ = H, R₂ = H
- R₁ = H, R₂ = 2',5'-diOMe
- R₁ = H, R₂ = 4'-Cl
- R₁ = H, R₂ = 2'-OMe
- R₁ = H, R₂ = 4'-OMe
- R₁ = H, R₂ = 3',4',5'-triOMe
- R₁ = CH₃, R₂ = 3',4',5'-triOMe
- R₁ = CH₃, R₂ = 2',5'-diOMe
- R₁ = CH₃, R₂ = 3',4'-diOMe
- R₁ = CH₃, R₂ = 3',4',5'-triOMe
- R₁ = CH₃, R₂ = H
- R₁ = H, R₂ = 3',4'-C₄H₄
- R₁ = CH₃, R₂ = 3',4'-C₄H₄
- R₁ = CH₃, R₂ = 2',3'-C₄H₄

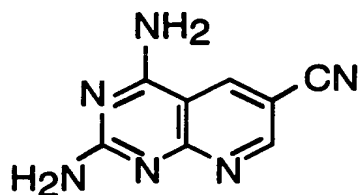


FIG. 14a

$\xrightarrow{\text{HCO}_2\text{H, Raney Ni}}$

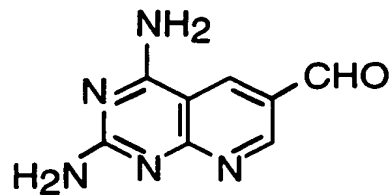


FIG. 14b

\downarrow
NaBH₄,
MeOH

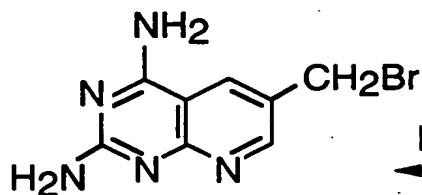


FIG. 14d

$\xleftarrow{\text{HBr gas, dioxane}}$

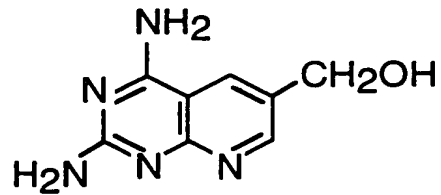


FIG. 14c

\downarrow
HS-R,
DMAC,
K₂CO₃ or NaCO₃

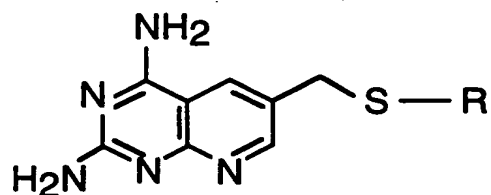


FIG. 14e R = Phenyl

FIG. 14f R = Naphthylene

00E230-493E0360

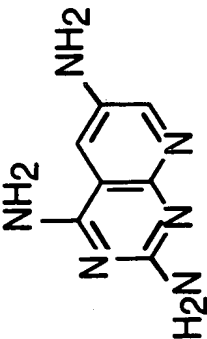
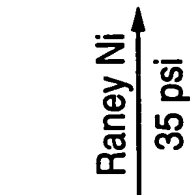
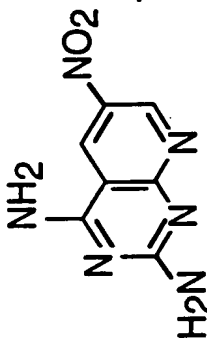
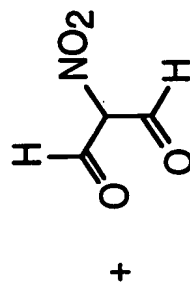
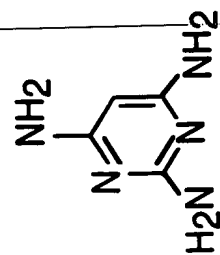


FIG. 15a

FIG. 15b

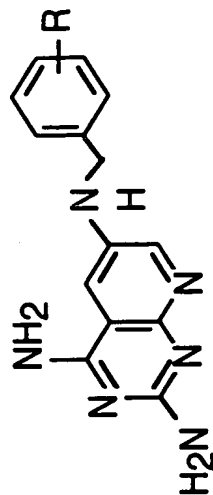
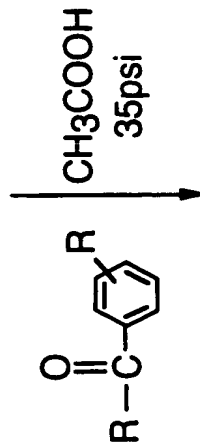


FIG. 15c

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

002290"499E0960

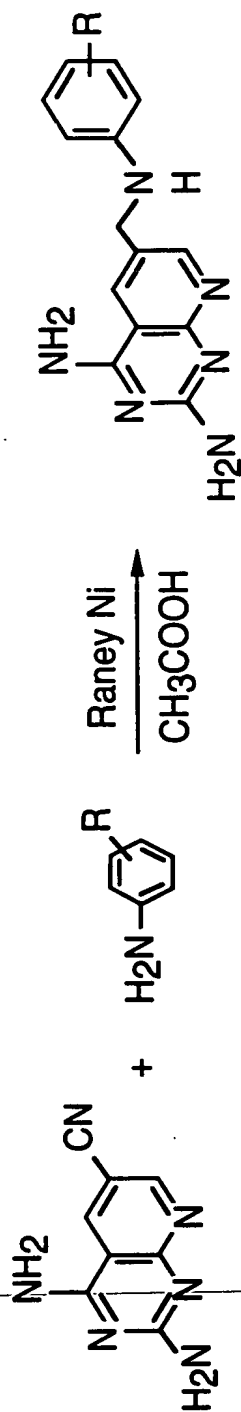
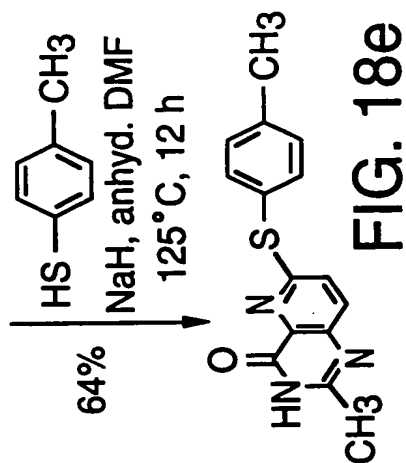
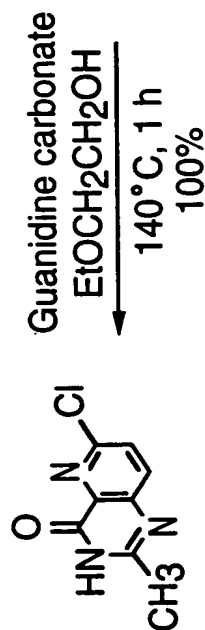
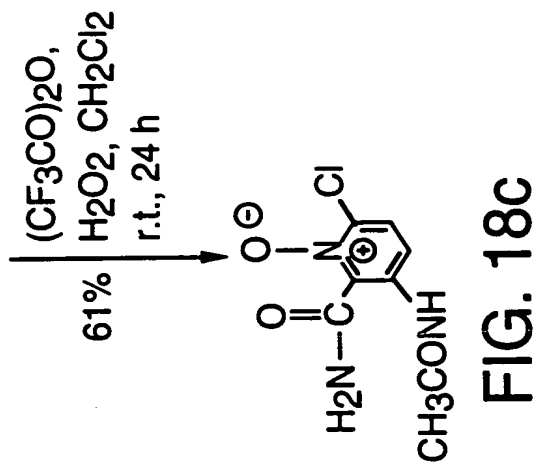
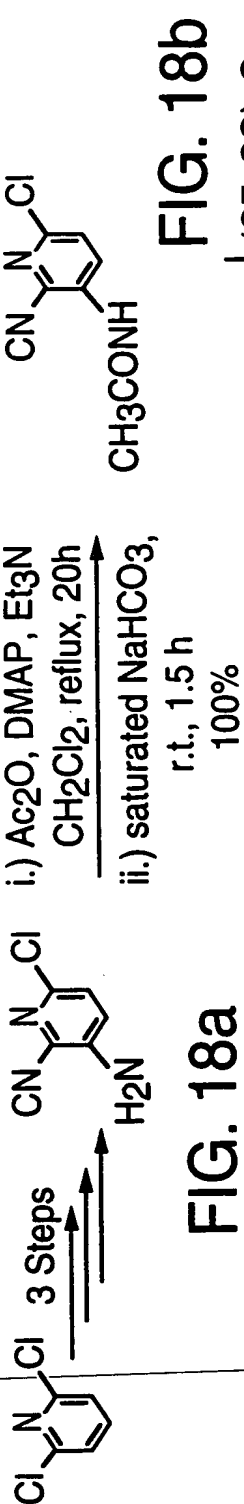


FIG. 16a

FIG. 16b

FIG. 16c

000000" 49900960



APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Fig. 1A

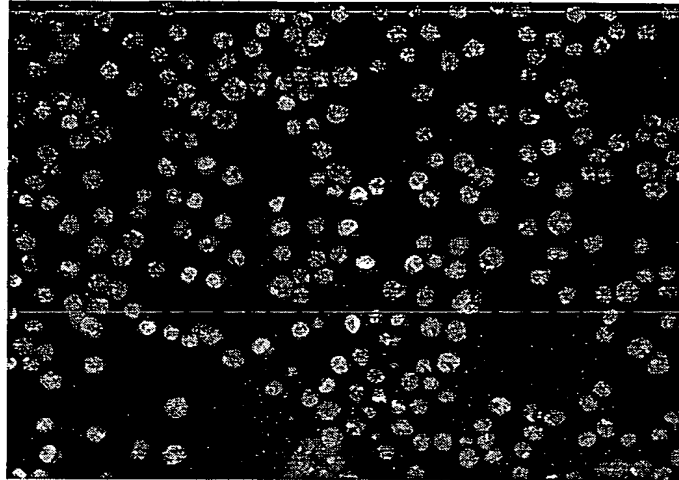
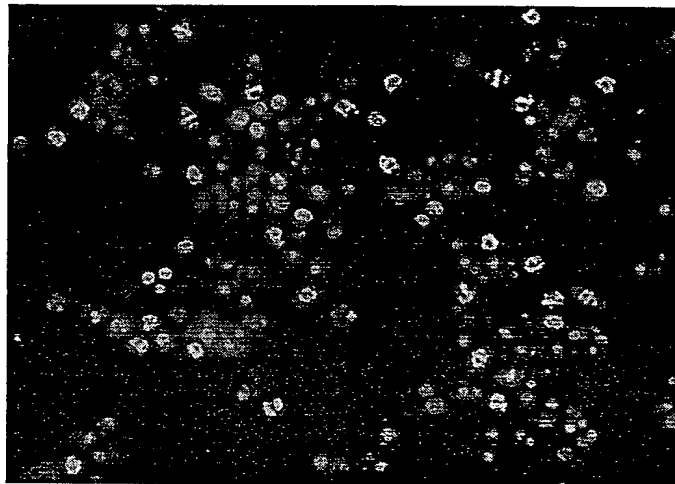


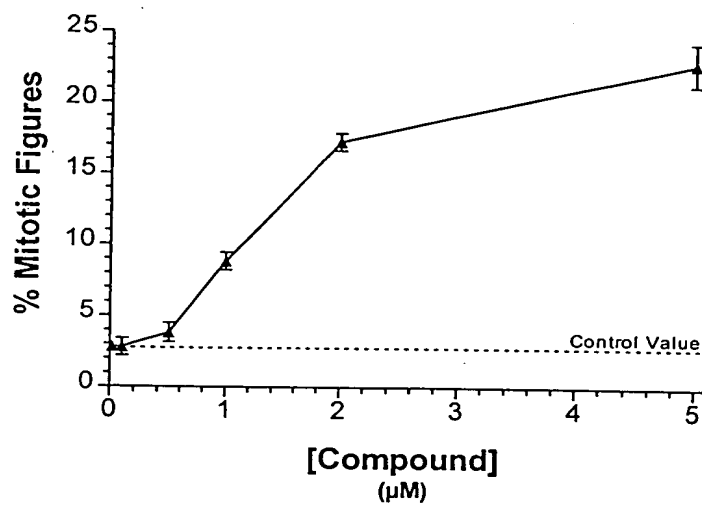
Fig. 1B



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T092T0-02469260

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

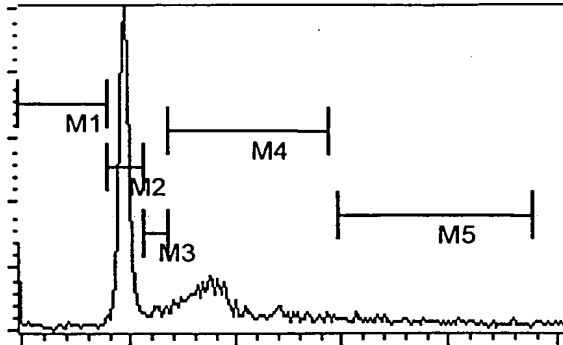
Fig. 2



FOUO: 02169260

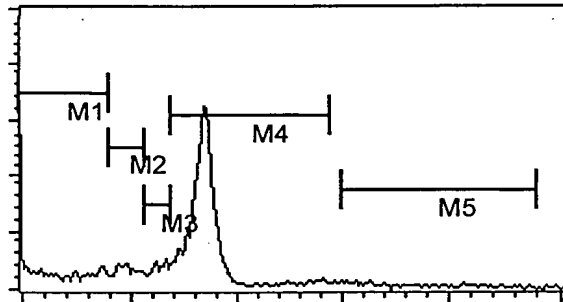
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Fig. 3A



Marker	%
AI	100.0
M1	2.6
M2	42.4
M3	3.8
M4	34.8
M5	9.8

Fig. 3B

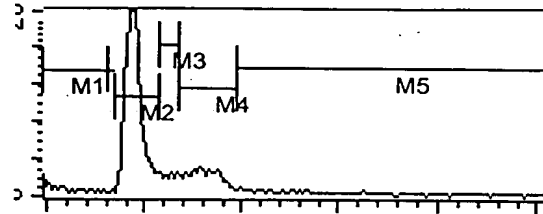


Marker	%
All	100.0
M1	25.1
M2	7.4
M3	5.3
M4	57.2
M5	3.8

0249260

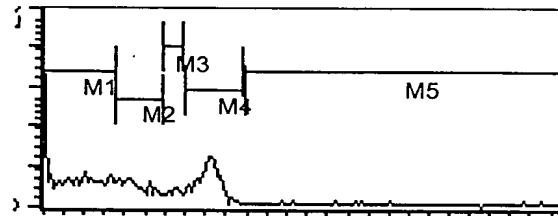
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Fig. 4A



Marker	%
All	100.0
M1	3.3
M2	68.4
M3	6.1
M4	16.5
M5	5.5

Fig. 4B

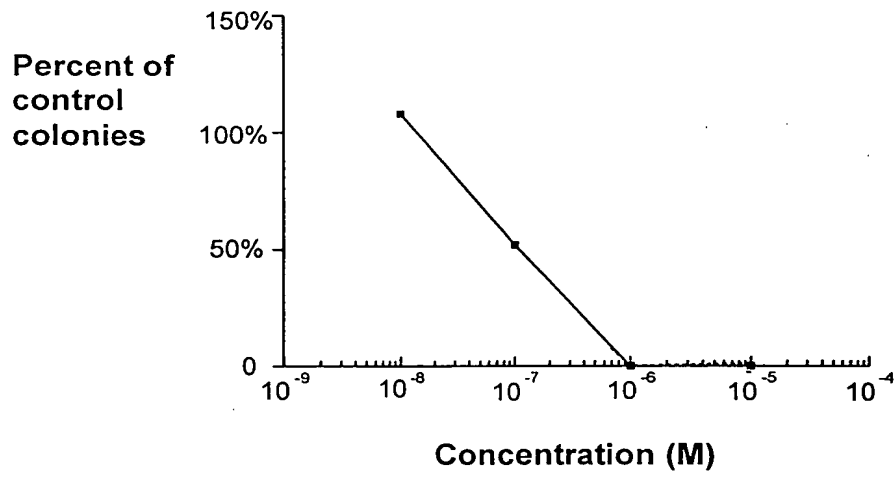


Marker	%
All	100.0
M1	56.1
M2	13.7
M3	4.3
M4	18.5
M5	7.3

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APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Fig. 5



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